

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

DON'T FORGET "PREVIOUSLY PRESENTED"

Claim 1 (currently amended): A method for ceramizing starting glass of glass-ceramics into glass-ceramics, comprising at least the following steps:

- ~~1.1~~ heating the starting glass ~~is heated~~ from an initial temperature T_1 to a temperature T_2 which is disposed above the glass transformation temperature T_G at which crystallization nuclei are precipitated;
- ~~1.2~~ holding the glass ~~is held~~ at the temperature T_2 for a period t_2 for the precipitation of crystallization nuclei;
- ~~1.3~~ further heating the glass ~~is further heated~~ to a temperature T_3 at which a crystal phase grows on the nuclei formed following ~~step 1.1 and 1.2~~ the preceding steps;
- ~~1.4~~ holding the glass ~~is held~~ for a period t_3 at a temperature T_3 or ~~heated~~ heating during this period to a higher temperature T_4 until ~~the~~ predetermined properties of the glass-ceramics have been reached; and
- ~~1.5~~ controlling the control of the temperature curve ~~is performed~~ with the help of a control loop comprising at least one temperature sensor for sensing the temperature and a heating unit as an actuator, wherein
- ~~1.6~~ the heating unit comprises short-wave IR radiators ~~for heating that heat~~ the glass to be relaxed with a thermal dead time of less than 10 ~~secs., especially <5 secs.~~ and the heating unit IR radiators are of a high color temperature $>1,500^\circ\text{C}$.

Claim 2 (canceled)

Claim 3 (currently amended): A method as claimed in ~~claim 2~~ claim 1, wherein the IR radiators are short-wave IR radiators with a color temperature $>1,500^\circ\text{C}$., ~~especially $>2,000^\circ\text{C}$., especially preferably $>2,400^\circ\text{C}$., even more preferably $>2,700^\circ\text{C}$.~~

Claim 4 (previously presented): A method as claimed in claim 1, wherein the IR radiators of the heating unit comprise in a bordered space in a comprehensive manner reflective or backscattering boundary surfaces.

Claim 5 (previously presented): A method as claimed in claim 4, wherein the reflective or backscattering boundary surfaces comprise one or mixtures of several of the following materials: Al_2O_3 ; BaF_2 ; BaTiO_3 ; CaF_2 ; CaTiO_3 ; MgO ; $3.5\text{Al}_2\text{O}_3$; MgO ; SrF_2 ; SiO_2 ; SrTiO_3 ; TiO_2 ; quartz; spinel; cordierite; cordierite sintered glass ceramics.

Claim 6 (previously presented): A method as claimed in claim 4, wherein the bordered space is an IR radiation cavity.

Claim 7 (previously presented): A method as claimed in claim 1, wherein the heating temperature to temperature T_2 is less than 120 secs., preferably less than 90 secs., and the temperature T_2 is less than 800°C .

Claim 8 (previously presented): A method as claimed in claim 1, wherein the holding temperature t_2 at temperature T_2 is in the range of 60 secs. to 3,600 secs.

Claim 9 (previously presented): A method as claimed in claim 1, wherein the heating time from temperature T_2 to temperature T_3 is less than 90 secs., ~~preferably less than 60 secs.~~, and the temperature T_3 is higher than 700°C .

Claim 10 (previously presented): A method as claimed in claim 1, characterized in that the holding temperature t_3 at temperature T_3 and the heating time t_3 to temperature T_4 is in the range of 60 secs. to 1,800 secs.

Claim 11 (previously presented): A method as claimed in claim 1, wherein the starting glass to be ceramized is held on a non-liquid base.

Claim 12 (withdrawn): An apparatus for ceramizing a green glass, comprising at least 12.1 a heating unit; 12.2 a temperature sensor; 12.3 a closed-loop/open-loop control device for

Application Serial No. 09/938,072
Amendment dated October 27, 2003
Reply to Office Action dated July 3, 2003

controlling the heating unit depending on the detected temperature and a predetermined temperature program, wherein 12.4 the heating unit comprises IR radiators for heating the glass to be relaxed with a thermal dead time of less than 10 secs., especially less than 5 secs.

Claim 13 (withdrawn): An apparatus as claimed in claim 12, wherein the heating unit comprises IR radiators of a high color temperature.

Claim 14 (withdrawn): An apparatus as claimed in claim 13, wherein the IR radiators are short-wave IR radiators with a color temperature of more than 1,500°C., especially more than 2,000°C., particularly preferably more than 2,400°C., and even more preferably more than 2,700°C.

Claim 15 (withdrawn): An apparatus as claimed in claim 12, wherein the IR radiators of the heating unit comprise in a bordered space in a comprehensive manner reflective or backscattering boundary surfaces.

Claim 16 (withdrawn): An apparatus as claimed in claim 15, wherein the reflective or backscattering boundary surfaces comprise one or mixtures of several of the following materials: Al_2O_3 ; BaF_2 ; BaTiO_3 ; CaF_2 ; CaTiO_3 ; $\text{MgO} \cdot 3.5\text{Al}_2\text{O}_3$; MgO ; SrF_2 ; SiO_2 ; SrTiO_3 ; TiO_2 ; quarzal; spinel; cordierite; cordierite sintered glass ceramics.

Claim 17 (withdrawn): An apparatus as claimed in claim 15, wherein the bordered space is an IR radiation cavity.

Claim 18 (withdrawn): An apparatus as claimed in claim 12, wherein the apparatus comprises devices for storing the starting glass to be ceramized.

Claim 19 (new): The method of claim 1 wherein the IR heaters heat the glass to be relaxed with a thermal dead time less than 5 secs.

Claim 20 (new): The method of claim 1 wherein the IR radiators are short-wave IR radiators with a color temperature $> 2400^\circ\text{C}$.

Application Serial No. 09/938,072
Amendment dated October 27, 2003
Reply to Office Action dated July 3, 2003

Claim 21 (new): The method of claim 1 wherein the IR radiators are short-wave IR radiators with a color temperature $> 2700^{\circ}\text{C}$.

Claim 22 (new): The method of claim 7 wherein the heating time to temperature T_2 is less than 90 secs.

Claim 23 (new): The method of claim 9 wherein the heating time from temperature T_2 to temperature T_3 is less than 60 secs.